

Variable	pH	P_ppm	K_ppm	Mg_ppm	Ca_ppm	S_ppm	Mn_ppm	Cu_ppm	B_ppm	Zn_ppm	Mo_ppm	Fe_ppm	Na_ppm	CEC_mec_100gCo_1	N_2	Cl	Cu_1	Zn_1	Pb_3	Ni_1	As_1	Cd_3	Hg_1	Cr_1	CLAY_1	SILT_1	SAND_1	Organic	
Moisture	0.017	0.025	0.027	-0.088	-0.042	-0.048	0.057	-0.089	-0.060	0.060	0.014	-0.018	-0.086	-0.079	0.046	-0.037	-0.096	-0.087	-0.067	-0.033	-0.117	0.007	0.002	-0.077	-0.016	-0.071	0.063	-0.047	
Nec_CV	-0.037	-0.026	-0.038	0.086	0.026	0.042	-0.061	0.082	0.040	-0.060	-0.020	0.026	0.080	0.063	-0.050	0.035	0.088	0.081	0.061	0.038	0.105	-0.006	-0.011	-0.024	0.068	0.010	0.075	-0.062	0.045
Ash_1	0.123	-0.135	0.245	-0.015	-0.127	-0.003	0.057	-0.086	0.117	-0.096	0.064	-0.087	0.014	0.105	0.045	0.027	0.102	-0.024	-0.022	-0.068	0.080	-0.106	-0.008	-0.004	0.082	0.071	-0.006	-0.027	0.025
Volatile_matter_1	0.013	0.325	-0.228	-0.069	-0.041	-0.022	-0.025	0.305	0.035	0.227	0.054	0.133	0.005	0.044	-0.062	-0.064	-0.170	-0.002	-0.052	-0.012	-0.124	0.094	-0.105	0.071	-0.172	-0.168	-0.169	0.194	-0.072
COV_2	-0.288	-0.153	0.004	-0.037	-0.165	-0.099	-0.086	-0.220	-0.263	-0.116	-0.054	0.104	-0.082	-0.221	-0.076	0.016	-0.070	-0.139	0.043	-0.151	-0.018	-0.007	-0.061	-0.029	-0.061	-0.029	-0.054	-0.010	
C_1	-0.132	-0.096	0.072	0.059	-0.080	0.027	-0.152	-0.177	-0.109	-0.040	-0.040	-0.133	-0.112	-0.157	0.051	-0.049	0.060	-0.063	-0.121	0.024	-0.020	0.004	-0.115	-0.106	-0.026	-0.018	0.061	-0.032	-0.026
H_2	-0.098	-0.076	-0.179	-0.018	0.016	0.063	-0.084	0.076	-0.044	-0.044	-0.091	-0.002	0.047	-0.055	-0.039	0.030	-0.071	0.048	0.132	0.068	-0.006	0.039	0.105	0.012	0.041	0.079	0.156	-0.142	0.019
N_1	-0.030	-0.228	0.084	-0.046	0.218	0.184	-0.139	-0.039	0.052	-0.221	0.029	0.033	0.159	0.075	-0.112	0.246	-0.020	0.057	-0.123	0.103	0.023	0.012	0.260	0.212	0.158	0.125	-0.182	0.218	-0.172
Sulphur_2	-0.011	-0.124	-0.060	0.062	0.091	0.159	-0.089	0.108	0.061	-0.140	-0.068	-0.030	0.121	0.053	-0.038	0.115	0.042	0.140	0.185	0.117	0.113	0.047	0.188	-0.046	0.167	0.161	0.164	-0.183	0.119
Chlorine_2	-0.042	-0.234	0.094	-0.035	-0.049	0.012	-0.084	0.003	-0.119	-0.062	-0.115	-0.032	-0.045	0.048	-0.021	0.060	-0.052	0.060	-0.061	0.081	-0.073	0.024	0.089	0.095	0.159	0.153	-0.164	-0.028	-0.028
Ba	-0.150	-0.231	-0.160	0.034	-0.580	-0.206	-0.443	-0.119	-0.471	0.030	-0.443	-0.316	-0.376	-0.525	0.346	-0.428	-0.102	-0.105	-0.051	0.048	-0.262	-0.365	0.125	-0.380	-0.426	-0.290	-0.107	-0.394	-0.120
Cr	0.192	-0.019	0.127	-0.195	0.419	-0.078	0.109	-0.130	0.099	-0.040	0.234	-0.137	-0.080	0.111	0.151	-0.101	-0.037	-0.123	-0.147	-0.187	-0.013	-0.003	-0.018	-0.095	-0.019	0.051	-0.043	0.028	-0.120
Co	-0.120	-0.070	0.182	-0.093	0.293	0.065	-0.317	-0.164	0.087	-0.116	0.223	0.324	0.200	0.157	-0.357	0.345	-0.084	-0.091	-0.086	0.026	-0.076	0.108	-0.006	0.279	0.181	0.049	-0.120	0.020	0.295
Cu	0.111	-0.392	0.423	-0.259	0.230	0.163	-0.061	0.021	0.156	-0.256	-0.101	-0.092	0.177	0.132	-0.073	0.257	0.324	0.148	0.202	0.112	0.256	-0.165	0.292	0.040	0.333	0.213	0.125	-0.211	0.275
Mb	0.095	-0.051	0.125	-0.130	0.124	-0.120	0.089	-0.203	0.130	0.016	0.119	-0.015	-0.035	0.103	0.013	-0.005	0.052	-0.157	-0.134	-0.191	0.007	-0.175	-0.116	0.176	-0.003	-0.007	-0.161	0.119	-0.020
Ni	-0.061	-0.205	0.443	-0.134	0.518	0.037	-0.415	-0.296	0.465	-0.384	0.357	0.342	0.340	0.535	-0.457	0.355	0.042	-0.093	-0.173	-0.063	0.139	-0.056	-0.081	0.360	0.304	0.120	-0.051	-0.058	0.314
V	0.200	-0.091	0.384	-0.008	0.087	-0.118	0.087	-0.118	0.052	0.094	-0.162	-0.080	0.085	0.135	-0.084	0.211	-0.119	-0.097	-0.073	-0.238	0.116	-0.125	0.108	0.108	0.018	0.018	-0.131	0.097	-0.087
Zn	-0.011	0.085	0.037	-0.071	-0.204	0.357	0.036	-0.313	0.470	-0.269	-0.209	-0.055	-0.188	-0.379	0.125	-0.084	-0.071	-0.135	0.066	-0.104	-0.288	-0.375	0.021	-0.300	-0.233	-0.266	0.293	-0.112	-0.112
Si	-0.216	-0.001	0.073	-0.114	0.037	0.000	-0.111	-0.213	0.072	-0.133	0.117	0.164	0.052	0.085	-0.139	0.075	-0.095	-0.113	-0.191	0.120	-0.064	0.045	-0.096	0.023	-0.009	-0.051	-0.008	0.012	0.076
As	-0.397	0.141	-0.079	-0.369	-0.191	-0.133	0.040	-0.510	-0.152	-0.069	0.000	0.203	-0.167	-0.123	-0.046	-0.069	-0.317	-0.407	-0.417	0.083	-0.200	-0.166	-0.236	-0.035	-0.259	-0.241	-0.129	0.170	-0.097
Hg	-0.128	0.121	0.200	-0.015	0.044	-0.133	-0.112	-0.198	0.189	-0.091	0.307	0.217	0.063	0.219	-0.153	0.019	0.005	-0.108	-0.356	-0.026	0.004	0.027	-0.331	0.006	-0.047	-0.186	-0.122	0.132	0.039
Br	-0.044	-0.192	-0.108	-0.066	0.365	0.657	-0.289	0.194	0.148	-0.061	0.024	0.114	0.345	0.123	-0.258	0.389	-0.066	0.202	0.398	0.296	0.010	0.381	0.657	0.331	0.278	0.124	-0.209	0.363	-0.044
Cd_2	-0.083	-0.415	-0.030	0.198	0.026	0.174	-0.109	-0.145	-0.029	-0.244	-0.286	-0.090	0.174	-0.014	-0.078	0.111	0.100	0.191	0.283	0.215	0.087	-0.271	0.423	-0.191	0.116	0.423	0.395	-0.351	0.117
Pb_2	0.066	0.077	-0.003	-0.054	-0.284	-0.057	0.305	-0.085	-0.201	0.181	-0.225	-0.151	-0.242	-0.278	0.224	-0.200	-0.150	-0.062	-0.046	0.036	-0.250	-0.173	0.119	-0.163	-0.311	-0.142	-0.098	0.151	-0.186
Al2O3_1	-0.038	-0.245	0.341	0.368	-0.096	-0.170	0.103	-0.015	-0.077	-0.140	-0.047	-0.090	-0.011	0.013	0.059	-0.079	0.229	0.027	-0.099	-0.096	0.294	-0.331	-0.256	-0.174	0.055	-0.089	0.109	-0.036	-0.029
BaO_1	-0.278	-0.191	-0.286	0.091	-0.674	-0.179	0.274	-0.081	-0.558	0.034	-0.530	-0.236	-0.363	-0.602	0.285	-0.408	-0.134	-0.063	-0.023	0.143	-0.292	-0.319	0.101	-0.400	-0.451	-0.144	0.330	-0.119	-0.364
CaCO3	0.391	-0.164	0.386	-0.222	0.250	-0.278	0.105	-0.181	0.315	-0.043	0.379	-0.315	-0.125	-0.280	0.238	-0.234	0.137	-0.246	-0.201	-0.465	0.173	-0.100	-0.142	0.116	0.063	0.007	-0.030	-0.021	-0.258
Fe2O3_1	0.072	-0.143	0.323	0.366	-0.199	-0.238	0.156	-0.071	-0.178	-0.078	0.060	-0.161	-0.190	-0.109	0.172	-0.170	0.416	-0.057	-0.232	-0.087	0.174	-0.021	-0.259	-0.216	0.005	-0.031	0.024	0.010	-0.095
K2O_1	-0.102	0.051	0.005	-0.036	-0.017	0.122	0.014	-0.048	-0.053	0.034	-0.141	0.125	0.042	-0.081	-0.090	0.140	-0.107	0.036	0.062	0.140	-0.123	-0.060	0.101	0.053	-0.031	-0.081	-0.099	0.081	0.129
MgO_1	-0.514	0.125	-0.072	0.483	-0.277	0.483	-0.267	0.536	-0.233	-0.052	-0.653	0.338	0.351	-0.193	-0.339	0.295	0.028	0.576	0.541	0.678	0.085	0.025	0.271	0.862	-0.189	0.309	-0.194	0.351	-0.044
Mn3O4_1	-0.311	0.407	-0.406	-0.220	-0.178	-0.163	0.122	-0.179	-0.636	0.378	-0.028	0.189	-0.352	-0.591	0.085	-0.144	-0.448	-0.260	-0.291	0.038	-0.579	0.272	-0.272	-0.095	-0.447	-0.331	-0.277	0.346	-0.167
Na2O_1	-0.428	0.102	-0.383	0.068	-0.415	0.172	0.191	0.127	-0.343	0.177	-0.663	0.138	0.007	-0.410	-0.044	0.014	-0.134	0.188	0.294	0.317	-0.193	-0.376	0.110	-0.083	-0.274	-0.304	0.069	0.069	0.015
P2O5_1	-0.212	0.282	-0.378	0.004	-0.133	0.209	-0.207	0.117	-0.328	0.133	-0.044	0.293	0.035	-0.258	-0.181	0.226	-0.289	0.092	-0.092	0.334	-0.306	0.421	0.113	-0.092	-0.055	-0.134	0.126	0.105	0.227
SiO2_1	-0.048	-0.038	0.068	0.037	-0.128	0.179	0.006	-0.137	-0.120	-0.030	0.080	-0.014	-0.133	0.083	0.042	-0.124	0.028	-0.133	-0.206	-0.076	-0.048	0.031	-0.177	-0.047	-0.085	-0.029	0.010	0.021	-0.108
TiO2_1	0.119	-0.217	0.233	0.028	0.163	-0.041	-0.067	-0.042	0.021	-0.031	0.110	-0.054	0.036	0.044	-0.042	0.091	0.066	-0.083	-0.015	-0.078	0.010	-0.060	0.133	0.087	0.095	0.118	0.007	-0.062	0.068
Al	0.043	-0.220	0.364	0.298	-0.011	-0.113	0.065	-0.011	0.016	-0.127	-0.025	-0.107	0.015	0.074	0.065	-0.043	0.472	0.040	-0.058	-0.095	0.084	-0.314	-0.165	-0.132	0.083	0.050	0.024	-0.025	-0.003
Ca	0.137	-0.150	0.425	-0.079	0.241	-0.134	0.166	-0.114	0.288	-0.052	0.217	-0.221	-0.025	0.256	0.154	-0.086	0.224	-0.108	-0.088	-0.303	0.207	-0.197	-0.063	0.081	0.105	0.120	-0.069	0.016	-0.097
Fe	0.124	-0.185	0.448	0.354	-0.086	0.118	-0.088	-0.064	-0.112	0.062	-0.154	-0.021	-0.131	0.002	0.139	-0.112	0.472	-0.042	-0.212	-0.113	0.230	-0.128	-0.226	0.176	0.055	-0.026	-0.046	0.021	-0.046
K	0.073	-0.052	0.198	-0.027	0.103	0.030	0.086	-0.053	0.086	0.001	-0.011	-0.021	0.034	0.060	0.006	0.068	0.066	-0.005	0.027	-0.039	0.035	-0.151	0.047	0.062	0.042	-0.002	-0.084	0.051	0.056
Mg	-0.328	0.054	-0.427	0.491	-0.159	0.433	-0.163	0.502	-0.102	-0.060	-0.561	0.218	0.338	-0.077	-0.251	0.270	0.177	0.544	0.512	0.547	0.196	-0.078	0.262	-0.192	0.123	-0.140	0.250	-0.168</	